

Assignment 3

Implement the execution model for Prolog described in lecture 9 (<http://www.cs.lth.se/EDA145/2009/lectures/4.pdf>). The lecture notes contain the relevant algorithms for unification and resolution in pseudo code using an imperative language. The resolution algorithm uses *backtracking*. If you are unfamiliar with this technique you may discover it by yourself or consult your “algorithms and data structures” text book.

You are not required to construct a parser for Prolog rules and queries. Abstract representations of such values may be build manually using the constructors.

Optionally you may define the natural semantics for `while` for use in your system (or a professional system) and let the system prove the results of Examples 2.1 and 2.2 in Nielson.